CONSOLIDATED INFORMATION TECHNOLOGY SERVICES
TASK ASSIGNMENT (TA)

1. **TITLE:** (D320) PICE Interface Development

TA No:	287-Rev1	
Task Area Monitor:	**Alternate Task Area Monitor:**	
NASA POC:	**Software Control Class:**	Low Control
Type of Task:	Non-Recurring Task	

2. BACKGROUND

Good design practices for both hardware and software user interfaces call for the ability to recover from an inadvertent action. Accidental or inadvertent commissions of such acts can have costly consequences. In such cases, there needs to be a mechanism for insuring that the action is truly intended by the operator and that he or she has thought about the consequences. This project explores the use of intent confirmation based on the user's engagement in the task (derived from EEG data). If the user appears to be engaged and thus paying attention, the confirmation of intent is not required. However, if the user is not engaged and thus more prone to inadvertent commission, the confirmation is required. The task to be conducted by the contractor is to program the conditional presentation of an action guard interruption ("are you sure?") based on an index of values from an EEG device.

3. OBJECTIVE

Programming support is required to implement a software program on an pocket PC using the C++ language with APIs for interfacing with the gtec mobile physiological measurement system. The gtec system collects physiological measurement data from dedicated hardware and processes and records that data on the pocket PC. For this project, the user/subject will perform a task on the pocket PC while his/her EEG signals are measured and also fed into the pocket PC. The software on the pocket PC then computes an assessment of the subject's state and changes the behavior of the subject's interface.

Schedule would begin roughly end of May, with preliminary development completed by July, with final version ostensibly completed in September.

In addition, the Revised Multi-Attribute Task Battery (R-MATB) application, developed under another task assignment requires formal testing prior to use by the Aviation Safety Program community. The contractor shall support the formal testing of this application through the development of test flight cards, configuration and events files. The contractor shall also participate in the actual formal testing to include but not limited to data collection, documentation and revisions of the baseline code.

4. GENERAL IT SUPPORT SERVICES

Services Specified Through Exhibit A:
none

Maintenance of Software Developed By or For LaRC:
none

Customer Support and IT Consultation and Training:
none - final documentation and software commenting should provide full explanation of code functionality, and procedures for use.

Exceptions and Additional Requirements:
none

General IT Support Services Performance Metrics

Performance Standard: Performance Standard: Documentation covering use of application software covered by this requirement is complete, understandable, and up-to-date.

Performance Metrics:

Exceeds: Documentation is error free, complete and up-to-date. Significant improvements have been made in clarity of documentation or documentation is proactively sought from all sources.

Meets: Documentation is complete with only minor errors noted.

Fails: One or more required documentation components are not available or errors are noted that could compromise the operation or integrity of the applications.

Performance Standard: Performance Standard: The contractor delivers product within costs and schedule.

Performance Metrics:

Exceeds: The contractor delivers application to the customer prior to scheduled delivery date and under cost.

Meets: The contractor delivers application to the customer on scheduled delivery date and within cost.

Fails: The contractor delivers application to the customer after scheduled delivery date and/or exceeds stated cost by more than ten percent.

5. SYSTEM AND APPLICATION DEVELOPMENT SERVICES

Project Title: PICE Interface development

LaRC Software Manager:

Software Software Control Class: Low

Responsibilities of Contractor and LaRC personnel:Contractors shall develop with guidance of design from LaRC Software Manager.

Project Title: R-MATB Formal Testing

LaRC Software Manager:

Software Software Control Class: Low

Responsibilities of Contractor and LaRC personnel:The contractor shall support LaRC personnel is all phases of formal testing of the Multi-Attribute Task Battery (R-MATB) application.

Requirements:
The contractor shall provide software engineer support to include test preparation, data collection during formal testing, documentation. This includes software enhancements and bug fixes observed during formal testing.
The contractor shall also provide the test environment to include the lab environment at their off-site facility, and at least one each, Windows XP and Windows Vista computer with joystick for use during formal testing.

6. WORK-AREA SPECIFIC SERVICES

Work Area Title: no special requirements

LaRC Manager: no special requirements

Work Area Description: no special requirements

Work Area Requirements: no special requirements

7. Exhibit A

None required.

8. SPECIAL SECURITY REQUIREMENTS

none

9. SOFTWARE ENGINEERING PROCESS REQUIREMENTS

"The Software Control Class requirements of this TA are determined to be "Low", therefore the software acquisition & control process described in the ConITS master TA SL001 shall apply to this TA".

10. JOINT REVIEW SCHEDULE

see deliverables

11. PERIOD OF PERFORMANCE

This TA is effective from 04/28/08 to 04/27/09

12. TECHNICAL PERFORMANCE RATING

For initial functionality

Quality: 60% Timeliness: 40%
for final functionlity

Quality: 70% Timeliness: 30%

13. RESPONSE REQUIREMENTS

This Task Plan shall address the contractor's specific work plans, associated estimated labor hours, cost and schedule.

14. GOVERNMENT ESTIMATED COST

15. FUNDING INFORMATION

Funding has not been entered for this TA.

16. MILESTONES

Date	MileStones
09/26/2008	Final delivery (see deliverables for interim deliveries)

17. DELIVERABLES

Number	Deliverable Item	Deliverable Schedule
1	Architecture and programming schedule	June 6, 2008
2	Software functionality delivery 1	June 30, 2008
3	Software functionality delivery 2	July 18, 2008
4	Software functionality delivery 3	August 1, 2008
5	Full version testing completed	August 29, 2008
6	Draft full documentation delivered	September 5, 2008
7	Final S/W and Documentation delivery	September 26, 2008
8	Weekly meetings with TAM, POC, Alternate TAM	weekly, or as designated by NASA POC

18. FILE ATTACHMENTS

None.